Higgs at CLIC

★ **CLIC: e^+e^- collider**

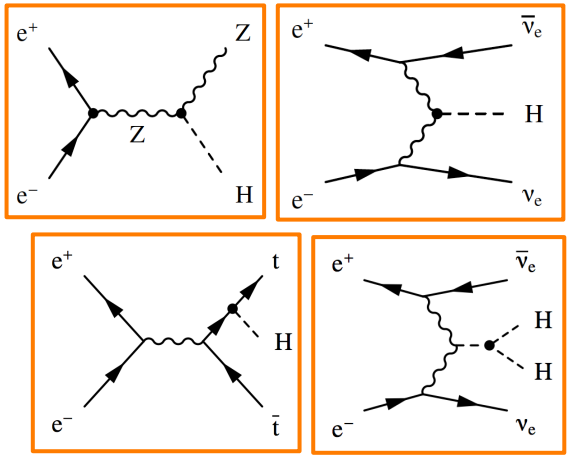
- Option for future energy frontier machine – post-LHC
- Staged approach: large potential for SM and BSM (Higgs) physics
  - 500 fb^{-1} @ 350 – 375 GeV : precision Higgs and top physics
  - 1.5 ab^{-1} @ ~1.5 TeV : precision Higgs (including rarer decays), BSM, …
  - ~2 ab^{-1} @ > 2 TeV : Higgs, Higgs self-coupling, BSM, …

★ **Higgs physics at CLIC**

- Complete set of Higgs studies for Minneapolis meeting
- All full simulation/reconstruction, including background

Process $e^+e^- \to H\nu\nu$	Observable	Statistical error	√s at CLIC
H→bb	σ×BR	0.2%	3 TeV
H→cc	σ×BR	3.2%	3 TeV
H→ττ	σ×BR	<3.7%	1.4 TeV
H→μμ	σ×BR	15%	3 TeV
ttH process	σ×BR	~8%	1.4 TeV
H→HH	λ_{HHH}	31%	1.4 TeV
H→HH	λ_{HHH}	16%	3 TeV

← Example results at high √s (without polarisation). Results below 1 TeV will be similar to ILC.



+ SUSY Higgs up to kinematic limit
+ Large reach for composite Higgs
+ …